

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

RECEIVED

JAN 08 2001

1644

P#18

TECH CENTER 1600/2900

ENTERED

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/308,027

DATE: 12/26/2000

TIME: 13:31:50

Input Set : A:\Sequence

Output Set: N:\CRF3\12262000\I308027.raw

5 <110> APPLICANT: Sone, Toshio
6 Kume, Akinori
7 Dairiki, Kazuo
8 Kino, Koshuke
10 <120> TITLE OF INVENTION: PEPTIDE-BASED IMMUNOTHERAPEUTIC AGENT
12 <130> FILE REFERENCE: 06501/031001
14 <140> CURRENT APPLICATION NUMBER: US 09/308,027
C--> 15 <141> CURRENT FILING DATE: 1999-08-16
17 <150> PRIOR APPLICATION NUMBER: PCT/JP97/04129
18 <151> PRIOR FILING DATE: 1997-11-12
20 <150> PRIOR APPLICATION NUMBER: JP 8/302053
21 <151> PRIOR FILING DATE: 1996-11-13
23 <160> NUMBER OF SEQ ID NOS: 146
25 <170> SOFTWARE: FastSEQ for Windows Version 3.0
27 <210> SEQ ID NO: 1
28 <211> LENGTH: 15
29 <212> TYPE: PRT
30 <213> ORGANISM: Cryptomeria
32 <400> SEQUENCE: 1
33 Gln Asn Arg Met Lys Leu Ala Asp Cys Ala Val Gly Phe Gly Ser
34 1 5 10 15
36 <210> SEQ ID NO: 2
37 <211> LENGTH: 15
38 <212> TYPE: PRT
39 <213> ORGANISM: Cryptomeria
41 <400> SEQUENCE: 2
42 Gly Ala Thr Arg Asp Arg Pro Leu Trp Ile Ile Phe Ser Gly Asn
43 1 5 10 15
45 <210> SEQ ID NO: 3
46 <211> LENGTH: 15
47 <212> TYPE: PRT
48 <213> ORGANISM: Cryptomeria
50 <400> SEQUENCE: 3
51 Pro Cys Val Phe Ile Lys Arg Val Ser Asn Val Ile Ile His Gly
52 1 5 10 15
54 <210> SEQ ID NO: 4
55 <211> LENGTH: 9
56 <212> TYPE: PRT
57 <213> ORGANISM: Cryptomeria
59 <400> SEQUENCE: 4
60 Phe Ile Lys Arg Val Ser Asn Val Ile
61 1 5
63 <210> SEQ ID NO: 5
64 <211> LENGTH: 15
65 <212> TYPE: PRT
66 <213> ORGANISM: Cryptomeria
68 <400> SEQUENCE: 5

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/308,027
 DATE: 12/26/2000
 TIME: 13:31:50

Input Set : A:\Sequence
 Output Set: N:\CRF3\12262000\I308027.raw

RECEIVED

JAN 08 2001

TECH CENTER 1600/2300

```

69 His Pro Gln Asp Gly Asp Ala Leu Thr Leu Arg Thr Ala Thr Asn
70 1 5 10 15
72 <210> SEQ ID NO: 6
73 <211> LENGTH: 15
74 <212> TYPE: PRT
75 <213> ORGANISM: Cryptomeria
77 <400> SEQUENCE: 6
78 Asp Ala Leu Thr Leu Arg Thr Ala Thr Asn Ile Trp Ile Asp His
79 1 5 10 15
81 <210> SEQ ID NO: 7
82 <211> LENGTH: 15
83 <212> TYPE: PRT
84 <213> ORGANISM: Cryptomeria
86 <400> SEQUENCE: 7
87 Leu Phe Phe Asn His His Lys Val Met Leu Leu Gly His Asp Asp
88 1 5 10 15
90 <210> SEQ ID NO: 8
91 <211> LENGTH: 15
92 <212> TYPE: PRT
93 <213> ORGANISM: Cryptomeria
95 <400> SEQUENCE: 8
96 Lys Ser Met Lys Val Thr Val Ala Phe Asn Gln Phe Gly Pro Asn
97 1 5 10 15
99 <210> SEQ ID NO: 9
100 <211> LENGTH: 15
101 <212> TYPE: PRT
102 <213> ORGANISM: Cryptomeria
104 <400> SEQUENCE: 9
105 Tyr Ala Ile Gly Gly Ser Ser Asn Pro Thr Ile Leu Ser Glu Gly
106 1 5 10 15
108 <210> SEQ ID NO: 10
109 <211> LENGTH: 15
110 <212> TYPE: PRT
111 <213> ORGANISM: Cryptomeria
113 <400> SEQUENCE: 10
114 Ala Phe Asn Val Glu Asn Gly Asn Ala Thr Pro Gln Leu Thr Lys
115 1 5 10 15
117 <210> SEQ ID NO: 11
118 <211> LENGTH: 11
119 <212> TYPE: PRT
120 <213> ORGANISM: Cryptomeria
122 <400> SEQUENCE: 11
123 Thr Pro Gln Leu Thr Lys Asn Ala Gly Val Leu
124 1 5 10
126 <210> SEQ ID NO: 12
127 <211> LENGTH: 15
128 <212> TYPE: PRT
129 <213> ORGANISM: Cryptomeria
131 <400> SEQUENCE: 12

```

RAW SEQUENCE LISTING

DATE: 12/26/2000

PATENT APPLICATION: US/09/308,027

TIME: 13:31:50

Input Set : A:\Sequence

Output Set: N:\CRF3\12262000\I308027.raw

RECEIVED

JAN 08 2001

TECH CENTER 1600/2900

132 Gly Lys His Asp Cys Thr Glu Ala Phe Ser Thr Ala Trp Gln Ala
133 1 5 10 15
135 <210> SEQ ID NO: 13
136 <211> LENGTH: 15
137 <212> TYPE: PRT
138 <213> ORGANISM: Cryptomeria
140 <400> SEQUENCE: 13
141 Ser Ala Met Leu Leu Val Pro Gly Ser Lys Lys Phe Val Val Asn
142 1 5 10 15
144 <210> SEQ ID NO: 14
145 <211> LENGTH: 15
146 <212> TYPE: PRT
147 <213> ORGANISM: Cryptomeria
149 <400> SEQUENCE: 14
150 Val Asp Gly Ile Ile Ala Ala Tyr Gln Asn Pro Ala Ser Trp Lys
151 1 5 10 15
153 <210> SEQ ID NO: 15
154 <211> LENGTH: 15
155 <212> TYPE: PRT
156 <213> ORGANISM: Cryptomeria
158 <400> SEQUENCE: 15
159 Pro Ala Ser Trp Lys Asn Asn Arg Ile Trp Leu Gln Phe Ala Lys
160 1 5 10 15
162 <210> SEQ ID NO: 16
163 <211> LENGTH: 15
164 <212> TYPE: PRT
165 <213> ORGANISM: Cryptomeria
167 <400> SEQUENCE: 16
168 Pro Glu Phe His Leu Val Phe Gly Asn Cys Glu Gly Val Lys Ile
169 1 5 10 15
171 <210> SEQ ID NO: 17
172 <211> LENGTH: 15
173 <212> TYPE: PRT
174 <213> ORGANISM: Cryptomeria
176 <400> SEQUENCE: 17
177 Gly Ile Asp Ile Phe Ala Ser Lys Asn Phe His Leu Gln Lys Asn
178 1 5 10 15
180 <210> SEQ ID NO: 18
181 <211> LENGTH: 15
182 <212> TYPE: PRT
183 <213> ORGANISM: Cryptomeria
185 <400> SEQUENCE: 18
186 Ala Ser Lys Asn Phe His Leu Gln Lys Asn Thr Ile Gly Thr Gly
187 1 5 10 15
189 <210> SEQ ID NO: 19
190 <211> LENGTH: 15
191 <212> TYPE: PRT
192 <213> ORGANISM: Cryptomeria
194 <400> SEQUENCE: 19

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/308,027
 DATE: 12/26/2000
 TIME: 13:31:50

Input Set : A:\Sequence
 Output Set: N:\CRF3\12262000\I308027.raw

RECEIVED

JAN 08 2001

TECH CENTER 1600/2900

```

195 Ser Arg Ala Glu Val Ser Tyr Val His Val Asn Gly Ala Lys Phe
196 1 5 10 15
198 <210> SEQ ID NO: 20
199 <211> LENGTH: 15
200 <212> TYPE: PRT
201 <213> ORGANISM: Cryptomeria
203 <400> SEQUENCE: 20
204 Ala Thr Ala Ala Ala Ile Gln Leu Lys Cys Ser Asp Ser Met Pro
205 1 5 10 15
207 <210> SEQ ID NO: 21
208 <211> LENGTH: 15
209 <212> TYPE: PRT
210 <213> ORGANISM: Cryptomeria
212 <400> SEQUENCE: 21
213 Ile Gln Leu Lys Cys Ser Asp Ser Met Pro Cys Lys Asp Ile Lys
214 1 5 10 15
216 <210> SEQ ID NO: 22
217 <211> LENGTH: 15
218 <212> TYPE: PRT
219 <213> ORGANISM: Cryptomeria
221 <400> SEQUENCE: 22
222 Cys Lys Asp Ile Lys Leu Ser Asp Ile Ser Leu Lys Leu Thr Ser
223 1 5 10 15
225 <210> SEQ ID NO: 23
226 <211> LENGTH: 15
227 <212> TYPE: PRT
228 <213> ORGANISM: Cryptomeria
230 <400> SEQUENCE: 23
231 Leu Ser Asp Ile Ser Leu Lys Leu Thr Ser Gly Lys Ile Ala Ser
232 1 5 10 15
234 <210> SEQ ID NO: 24
235 <211> LENGTH: 9
236 <212> TYPE: PRT
237 <213> ORGANISM: Cryptomeria
239 <400> SEQUENCE: 24
240 Lys Val Thr Val Ala Phe Asn Gln Phe
241 1 5
243 <210> SEQ ID NO: 25
244 <211> LENGTH: 15
245 <212> TYPE: PRT
246 <213> ORGANISM: Cryptomeria
248 <400> SEQUENCE: 25
249 Asp Asn Pro Ile Asp Ser Cys Trp Arg Gly Asp Ser Asn Trp Ala
250 1 5 10 15
252 <210> SEQ ID NO: 26
253 <211> LENGTH: 15
254 <212> TYPE: PRT
255 <213> ORGANISM: Cryptomeria
257 <400> SEQUENCE: 26

```

RAW SEQUENCE LISTING

DATE: 12/26/2000

PATENT APPLICATION: US/09/308,027

TIME: 13:31:50

Input Set : A:\Sequence

Output Set: N:\CRF3\12262000\I308027.raw

```

258 Ser Cys Trp Arg Gly Asp Ser Asn Trp Ala Gln Asn Arg Met Lys
259 1 5 10 15
261 <210> SEQ ID NO: 27
262 <211> LENGTH: 15
263 <212> TYPE: PRT
264 <213> ORGANISM: Cryptomeria
265 <400> SEQUENCE: 27
267 Asp Ser Asn Trp Ala Gln Asn Arg Met Lys Leu Ala Asp Cys Ala
268 1 5 10 15
270 <210> SEQ ID NO: 28
271 <211> LENGTH: 15
272 <212> TYPE: PRT
273 <213> ORGANISM: Cryptomeria
275 <400> SEQUENCE: 28
276 Leu Ala Asp Cys Ala Val Gly Phe Gly Ser Ser Thr Met Gly Gly
277 1 5 10 15
279 <210> SEQ ID NO: 29
280 <211> LENGTH: 15
281 <212> TYPE: PRT
282 <213> ORGANISM: Cryptomeria
284 <400> SEQUENCE: 29
285 Val Gly Phe Gly Ser Ser Thr Met Gly Gly Lys Gly Gly Asp Leu
286 1 5 10 15
288 <210> SEQ ID NO: 30
289 <211> LENGTH: 15
290 <212> TYPE: PRT
291 <213> ORGANISM: Cryptomeria
293 <400> SEQUENCE: 30
294 Ser Thr Met Gly Gly Lys Gly Gly Asp Leu Tyr Thr Val Thr Asn
295 1 5 10 15
297 <210> SEQ ID NO: 31
298 <211> LENGTH: 15
299 <212> TYPE: PRT
300 <213> ORGANISM: Cryptomeria
302 <400> SEQUENCE: 31
303 Lys Gly Gly Asp Leu Tyr Thr Val Thr Asn Ser Asp Asp Asp Pro
304 1 5 10 15
306 <210> SEQ ID NO: 32
307 <211> LENGTH: 15
308 <212> TYPE: PRT
309 <213> ORGANISM: Cryptomeria
311 <400> SEQUENCE: 32
312 Tyr Thr Val Thr Asn Ser Asp Asp Asp Pro Val Asn Pro Ala Pro
313 1 5 10 15
315 <210> SEQ ID NO: 33
316 <211> LENGTH: 15
317 <212> TYPE: PRT
318 <213> ORGANISM: Cryptomeria
320 <400> SEQUENCE: 33

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/308,027

DATE: 12/26/2000

TIME: 13:31:51

Input Set : A:\Sequence

Output Set: N:\CRF3\12262000\I308027.raw

L:15 M:271 C: Current Filing Date differs. Replaced Current Filing Date